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BEFORE THE BOARD OF PATENT APPEALS
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Technology Center 2100

Application Number: 10/047,134
Filing Date: January 15, 2002
Appellant(s): MA ET AL.

Todd M. Oberdick
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 24, 2006 appealing from the Office action mailed

January 06, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which

will directly affect or be directly affected by or have a bearing on the Board's decision in the pending

appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief

is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially

correct. The grounds of rejection are:

Claims 1-18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Klien (U.S.

Patent No. 6,709,330) in view of O'Shaughnessy (U.S. Patent No. 6,484,151) and claims

1, 13, and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Klien

(U.S. Patent No. 6,709,330) in view of Appellants admissions.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein **(US 6,709,330)**,

    and further in view of O'Shaughnessy ("OS") **(US 6,484,151)**.

As per amended claim 1, Klein discloses a system for simulating trading of financial assets having a

computer **(col.: 22 lines: 40-47)**, software executing on said computer for displaying a first time

interval and a first corresponding price of a plurality of time intervals and corresponding prices **(col.: 7**

lines: 48-56 , Figure 6 options detail and equity detail), software executing on said computer for

receiving an indication of a decision to trade **(Figure 7, col 8 ln 28-30)**, software executing on said

computer for simulating the trade **(col.: 1 lines: 11-15, col.: 15 lines: 51-52)**, software executing on

said computer for repeatedly displaying a next time interval and a next corresponding price of the

plurality of time intervals and corresponding prices **(col.: 7 lines: 48-56, col.: 4 lines: 61-63, Figure**

6 options detail and equity detail), software executing on said computer for repeatedly receiving

indications of decisions to trade based upon said next time interval and said next corresponding price of

the plurality of time intervals and corresponding prices **(col.: 15 lines: 34-39)**, and software executing

on said computer for repeatedly simulating trades based upon said repeatedly received indications of

decisions to trade **(col.: 15 lines: 51-52)**. Klein however does not explicitly mention that his historical

data contains at least some of said plurality of time intervals and corresponding prices being based on

actual historical data. O'Shaughnessy **("OS")** however discloses a stock simulation system having the

said feature **(col: 3 line: 6-17)**. It would have been obvious to an artisan of ordinary skill at the time of

Applicant's invention to combine the two references in order to test an individuals trading strategy

without incurring loss of assets **(OS: col: 4 line: 50-52)**.

As per claim 2, Klein discloses a system according to claim 1, wherein some of said plurality of time

intervals and corresponding prices are based on fictitious data **(Figure 15 item 1510)**.

As per claim 3, Klein discloses all limitations of claim 1. Klein does not however explicitly mention that

the time and the corresponding prices are based solely on historical data. OS however discloses a stock

simulation system having the said feature **(col: 3 line: 6-17)**. It would have been obvious to an artisan of ordinary skill in the art at the time of the Applicant's invention to combine the two references in order to test an individuals trading strategy without incurring loss of assets **(OS: col: 4 line: 50-52)**.

As per claim 4, Klein discloses a system according to claim 1, wherein said historical data is selected from the group consisting of news, stories, events, market performance, and combinations thereof **(col.: 2 lines: 7-13)**.

As per claim 5, Klein discloses a system according to claim 1, wherein the plurality of time intervals and corresponding prices are displayed graphically **(Figure 12)**.

As per claim 6, Klein discloses a system according to claim 1, further comprising software executing on said computer for displaying a recommendation based upon the decisions to trade **(col.: 16 lines: 16-23)**.

As per claim 7, Klein discloses a computer system that displays a time intervals and the corresponding prices. Wherein the computer system receives a request to simulate, and simulates the trade. Wherein the requests and simulations occur repeatedly. Klein does not however substantially disclose that the computer evaluates performance compared to benchmarks. O'Shaughnessy however discloses an analogous system that discloses the limitations **(col2 lines 62 to col3 line 47, emphasis on col. 3 ln 34-39 and col. 3 ln 8-9)**. It would have been obvious to one of ordinary skill in the art <stock simulation / modeling> at the time of Applicant's invention to combine the features of the two references in order to allow the user to receive better feedback from his or her trading strategy.

As per claim 8, Klein discloses a system according to claim 1, further comprising software executing on said computer for providing a plurality of time intervals and corresponding prices for a portfolio of financial assets **(col.: 2 lines: 14-20, Figure 12)**.

As per claim 9, Klein discloses a system according to claim 1, further comprising software executing on said computer for receiving indications of trades from a plurality of users **(col.: 4 lines: 61-63, col.: 4 lines: 64-66, col.: 4 lines: 38-44)**.

As per claim 10, Klein discloses a system according to claim 9, further comprising software executing on said computer for evaluating performance as compared to other users **(col.: 4 lines: 64-66)**.

As per claim 11, Klein discloses a system according to claim 1, wherein the displayed time intervals and corresponding prices do not indicate their source of origin **(col.: 12 lines: 20-31)**.

As per claim 12, Klein discloses a system according to claim 1, wherein the plurality of time intervals and corresponding prices are based upon randomly selected historical data **(col.: 12 lines: 20-31, Figure 15 item 1510)**.

As per amended claim 13, Klein discloses a system for simulating trading of financial assets having a computer **(col.: 22 lines: 40-47)**, software executing on said computer for receiving a request to display specified information **(col.: 5 lines: 46-49)**, software executing on said computer for displaying a first time interval and a first corresponding price of a plurality of time intervals and corresponding prices **(col.: 7 lines: 48-56 , Figure 6 options detail and equity detail)**, software executing on said computer for displaying specified information **(col.: 5 lines: 46-49)**, software executing on said computer for receiving an indication of a decision to trade **(Figure 7, col 8 ln 28-30)**, software executing on said computer for simulating the trade **(col.: 1 lines: 11-15, col.: 15 lines: 51-52)**, software executing on said computer for repeatedly displaying a next time interval and a next corresponding price of the plurality of time intervals and corresponding prices **(col.: 7 lines: 48-56, col.: 4 lines: 61-63, Figure 6 options detail and equity detail)**, software executing on said computer for repeatedly receiving indications of decisions to trade based upon said next time interval and said next corresponding price of the plurality of time intervals and corresponding prices **(col.: 15 lines: 34-39)**, and software executing on said computer for repeatedly simulating trades based upon said repeatedly received indications of decisions to trade **(col.: 15 lines: 51-52)**. Klein however does not explicitly mention that his historical data contains at least some of said plurality of time intervals and corresponding prices being based on actual historical data. OS however discloses a stock simulation system having the said feature **(col: 3 line: 6-17)**. It would have been obvious to an artisan of

ordinary skill at the time of Applicant's invention to combine the two references in order to test an individuals trading strategy without incurring loss of assets **(OS: col: 4 line: 50-52)**.

As per claim 14, Klein discloses a system according to claim 13, wherein said specified information is requested by a user **(col.5 lines 46-49, col.: 4 lines: 61-63, col.: 4 lines: 64-66, col.: 4 lines: 38-44)**.

As per claim 15, Klein discloses a system according to claim 13, wherein said specified information is selected from the group consisting of news, stories, events, market performance, a historical time period, and combinations thereof **(col.: 2 lines: 7-13)**.

As per claim 16, Klein discloses a method for providing a simulated trading environment for trading financial assets. The method has steps of providing a computer **(col.: 22 lines: 40-47)**, displaying a time interval on said computer **(col.: 7 lines: 48-56 , Figure 6 options detail and equity detail)**, displaying a price of a financial asset corresponding to said time interval **(col.: 7 lines: 48-56 , Figure 6 options detail and equity detail)**, receiving an indication to trade the financial asset **(Figure 7, col 8 ln 28-30)**, simulating the trade according to said indication to trade **(col.: 1 lines: 11-15, col.: 15 lines: 51-52)**, repeatedly displaying a next time interval and a next corresponding price of a plurality of time intervals and corresponding prices **(col.: 7 lines: 48-56, col.: 4 lines: 61-63, Figure 6 options detail and equity detail)**, repeatedly receiving indications of decisions to trade based upon said next time interval and said next corresponding price **(col.: 15 lines: 34-39)**, and repeatedly simulating trades based upon said repeatedly received indications of decisions to trade **(col.: 15 lines: 51-52).)**. Klein however does not explicitly mention that his historical data contains at least some of said plurality of time intervals and corresponding prices being based on actual historical data. OS however discloses a stock simulation system having the said feature **(col: 3 line: 6-17)**. It would have been obvious to an artisan of ordinary skill at the time of Applicant's invention to combine the two references in order to test an individuals trading strategy without incurring loss of assets **(OS: col: 4 line: 50-52)**.

As per claim 17, Klein discloses a method according to claim 16, further comprising the step of receiving user specified information **(col.5 lines 46-49)**.

As per claim 18, Klein discloses a method according to claim 17, further comprising the step of displaying said user specified information **(col.5 lines 46-49)**.

2.   Claims 1, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein **(US 6,709,330)**, and further in view of Applicants' admissions **(background of invention)**.

As per amended claim 1, Klein discloses a system for simulating trading of financial assets having a computer **(col.: 22 lines: 40-47)**, software executing on said computer for displaying a first time interval and a first corresponding price of a plurality of time intervals and corresponding prices **(col.: 7 lines: 48-56 , Figure 6 options detail and equity detail)**, software executing on said computer for receiving an indication of a decision to trade **(Figure 7, col 8 ln 28-30)**, software executing on said computer for simulating the trade **(col.: 1 lines: 11-15, col.: 15 lines: 51-52)**, software executing on said computer for repeatedly displaying a next time interval and a next corresponding price of the plurality of time intervals and corresponding prices **(col.: 7 lines: 48-56, col.: 4 lines: 61-63, Figure 6 options detail and equity detail)**, software executing on said computer for repeatedly receiving indications of decisions to trade based upon said next time interval and said next corresponding price of the plurality of time intervals and corresponding prices **(col.: 15 lines: 34-39)**, and software executing on said computer for repeatedly simulating trades based upon said repeatedly received indications of decisions to trade **(col.: 15 lines: 51-52)**. Klein however does not explicitly mention that his historical data contains at least some of said plurality of time intervals and corresponding prices being based on actual historical data. Applicants' admit that the use of real historical data was known **(para 4)**. It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the features of Klein with the features admitted to be known by the Applicants in order to allow for practice and sharpening of ones trading skills, as also admitted by Applicants **(para 4)**.

As per amended claim 13, note the rejection of claim 1 above. The Instant Claim is functionally equivalent to the above-rejected claim 1 but for:

The system additionally is for receiving a request to display specified information and has software executing on said computer for displaying specified information **(Klein: col.: 5 lines: 46-49)**.

As per amended claim 16, note the rejection of claims 1 and 13 above. The Instant Claim is functionally equivalent to the above-rejected claims and is therefore rejected under same prior-art teachings.

(10) Response to Argument

10.1   Appellants argue primarily:

> Appellant "respectfully submits that neither O'Shaughnessy nor Applicant's admissions disclose the element missing in Klein (i.e., the use of time intervals and corresponding prices which are based on historical data in a system for simulating trading of financial assets." **(Appeal Brief: page 8 paragraph 2.)**

10.1.1 Appellants expand on the above argument 10.1:

> "O'Shaughnessy does disclose that historical information is displayed to the investor, the historical information is used only to evaluate whether particular trading strategies should be pursued and/or whether particular stocks should be purchased. Historical information is not used in any way to simulate trading over a historical time period in the context of a simulated trading environment, as is required by all claims, as amended, for the present application." **(Emphasis added. Appeal Brief: page 8 paragraph 3 to page 9 paragraph 1.)**

10.1.2 Appellants further expand on argument 10.1:

> "The system discussed in the Background section of the present application, [...], is merely a system which allows a trader to evaluate the performance of a particular trading strategy. For example, a user may specify a particular trading technique, such as, for example, selling a technology stock when a market price is either 5 dollars above or below the buying price. Once the user's parameters have been specified, the system may chart the performance of the technology stock as compared with actual historical performance of that stock in order to demonstrate how the specified particular trading technique would have performed." **(Emphasis added. Appeal Brief: page 9 paragraph 2.)**

10.1.3 Appellants further state:

> "However, although historical data is employed by this system [O'Shaughnessy], the historical data is used only to evaluate whether particular trading strategies should be pursued. Historical information is not used in any way to simulate trading over a historical time period in context of a simulation trading environment, as is required by all claims, as amended, of the present application. **(Emphasis added. Appeal Brief: page 9 paragraph 2.)**

10.1.4 Appellants further state:

> "Thus, the present invention is concerned with allowing user to evaluate his/her performance in a real-world environment. In fact the system, would allow the user to determine how his/her performance would have been at a particular time in history." **(Emphasis added. Appeal Brief: page 2 paragraph 2)**

10.2   Examiner response:

10.2.1 In response to argument 10.1.1 above, Appellants have admitted that the historical information is used to evaluate a particular trading strategy (see emphasized portion of argument 10.1.1). The

evaluation is performed by simulating a particular trading strategy over a period of time, wherein

the time portion is based on historical information, as admitted by Appellants. As such, the

reference discloses simulating a stock based on historical data and therefore covers the limitation

"time intervals and corresponding prices which are based on historical data".

10.2.2 In response to argument 10.1.2 above, Appellants have admitted in the Appeal Brief that in the

Background of the Specification "the system may chart the performance of the technology stock

as compared with actual historical performance of that stock in order to demonstrate how the

specified particular trading technique would have performed". The system inputs a trading

strategy and charts it performance over a period of time, based on historical data. The system

then evaluates its performance by simulating the system with the given trading technique. The

charting as well as evaluation are simulating the stock in order to evaluate its performance. As

such, the Appellants' admissions disclose covers the limitation "time intervals and corresponding

prices which are based on historical data".

10.2.2.1   This is further evidenced in Appellants' Background section, paragraph 29:

> "One approach would be to sharpen an investors trading skills. Known system require a user to specify his/her
> trading techniques, such as, for example, selling a technology stock when the market price is either 5 dollars above
> to below the buying price. Once the user's parameters have been specified, known system s will chart the
> performance of the technology stock as compared with actual historical performance of that stock." **(Emphasis
> added. See Spec. paragraph 4)**

10.2.3 This is additionally evidenced by Appellants' admission in the Appeal Brief, as seen in section

10.1.3 above, which discloses evaluation of trading strategies over a time interval based on

historical information.

10.2.4 Klein discloses the use of historical information on **(col: 5 line: 10-23)**: "A Quotron™ where the

available options on the companies in the player's pit are listed; a company information screen

where a player can learn background and historical information about the companies in the

player's pit; a trading screen for the player to place options and equity orders; a stock graph

where the player can track the price of the underlying stock; ..."

10.2.5 Appellants argue that Klein does not teach the use of historical data. The above quote from Klein

discloses the use of historical information. Klein does not prohibit the historical information from

being actual historical information; however, the secondary reference was brought in order to

show a real-world stock simulation system which used actual historical information.

10.2.6 O'Shaughnessy discloses the use of historical information to simulate stock trades **(col: 3 line:**

6-17):

> "... providing the use the opportunity to evaluate a strategy's performance over various periods of time; providing the user the opportunity to model the performance of a selected strategy with simulated data; providing the user the opportunity to <u>model the performance of a selected strategy with historical data</u> when said historical data is available; providing the user the opportunity to view the sample holdings of a selected strategy; providing the user a means for inputting the amount of money said user wishes to invest..."

10.2.7 The modeling disclosed by O'Shaughnessy is in fact simulating the actual historical information,

as is required by Appellants' claims.

10.3   **Appellants further submit:**

> "... even if it was discovered that historical information has, in fact been used in order to simulate trading over a historical time period in the context of a simulated trading environment, Applicant respectfully submits that it would not have been obvious to modify Klein to incorporate this element." **(Appeal Brief: Page 10 paragraph 2)**

10.3.1 Appellants further expand on argument 10.3:

10.3.2 "Moreover, Klein is concerned with providing a <u>game</u>." **(Emphasis added by Appellants)**

10.3.3 "Although <u>Klein does discuss that one of the purposes of the game is to educate</u> the player, the major purpose of Klein, as with any game, is to provide a fun and exiting experience to the player." **(Emphasis added by Examiner)**

10.3.4 "The algorithms disclosed in Klein for generating the fictitious data upon which the simulated trading is based, are specifically designed to so provide a such fun and exiting experience in order to keep game players entertained by presenting the played with unexpected and interesting simulations. <u>Such would not necessarily be the case if time intervals and corresponding prices were based on historical data</u>, which oftentimes might lead to ordinary and mundane situations, and therefore ordinary and mundane gameplay. **(Emphasis added by Examiner)**

10.3.5 "At the end of the simulation, <u>the system of the present invention could inform the player</u> that he/she would have had a specific gain or loss had he/she been trading XYZ stock during the year 2000" **(Appeal Brief: Page 12 paragraph 2)**

10.4   **Examiner response:**

10.4.1 The following is a quotation of Klein:

> "The present invention comprises a game engine for keeping track of game time and game settings, <u>an options market simulator for providing real-world options trading environment</u>, and a portfolio manager engine for keeping track of player's portfolio." **(Emphasis added. Klein col: 2 line: 15-20)**.

10.4.2 Regarding Appellant's arguments 10.3.1 to 10.3.4, the purpose of Klein's invention is to educate

the person by simulating a "real-world options trading environment". Which is the identical

purpose, as disclosed by Applicants on **(page 12 paragraph 2)**: "the present invention is

concerned with allowing user to evaluate his/her performance in a real-world environment." As

such, Klein has motivation to provide actual historical data because Klein is simulating a real-

world trading environment.

10.4.3 Regarding 10.3.5, Appellants use the terminology "player" which implies that their invention is

directed toward a playing environment, and therefore a game.

10.5   **Applicants further submit:**

10.5.1 "Thus, not only is there no motivation provided in any of the cited prior art to modify Klein as suggested by the Examiner,
but Klein itself also teaches away from such a modification since the modification suggested by the Examiner would
render Klein unsatisfactory for its intended purpose (i.e., providing a fun and exiting experience in order to keep players
entertained by presenting the player with unexpected and interesting situations) in many instances." **(page 12 last
paragraph to page 13 first paragraph)**

10.6   **Examiner response:**

10.6.1 Klein's intended purpose is to provide a real-world options trading environment.

10.6.2 Appellants appear to argue that Klein is targeted only for providing a game, this is not true as

evidenced by the Field of Invention which discloses that Klein is directed toward "simulating a

real world options trading environment".

10.6.3 Furthermore, Appellants argue that Klein would be rendered unsatisfactory for game play in

many instances. In many other instances it would be perfectly acceptable and often times

advantageous to use Klein as a game simulator with the use of actual historical information.

10.6.4 As such, Klein has motivation to use real historical information.

10.7   **Examiner Notes:**

10.7.1 Paragraph 29 of Appellants' specification discloses

"The time intervals, price, and test environment provided by system 10 are based upon historical data stored and
retrieved from database 60. The historical data includes foreign assets, domestic assets, bonds, money markets, and
stock. However, system 10 does not indicate the identity of the historical data or the origin of the information used to

provide the test environment. This is so that any prior knowledge the user may have about past market conditions will not influence his/her trading decisions. <u>This ensures a realistic trading environment because investors, in actuality, are unaware of events and their future effect on an asset's performance.</u> "

10.7.2   Appellants further state in the Appeal Brief:

"The algorithms disclosed in Klein for generating the fictitious data upon which the simulated trading is based are specifically designed to so provide a such fun and exiting experience in order to keep the game players <u>entertained by presenting the player with unexpected</u> and interesting situations." **(Appeal Brief: page 11 paragraph 2)**

10.7.3   The above statements support the conclusion that the purpose of the Appellants' invention and Klein are identical (i.e. provide a real-world stock options simulation environment wherein the user is presented with situations of which they are unaware). To call one a game and the other a simulation is irrelevant. The two perform the same functionality.

10.7.4   It is further noted that, in context of a simulation engine of claim 1, when the simulation engine only partly contains historical information and partly based on fictitious information (as in claim 2), the end result of the simulation is fictitious.

10.8   **Examiner's Conclusion**

10.8.1   The Appellants have made the following arguments:

10.8.1.1   O'Shaughnessy does not teach historical information; and

10.8.1.2   Appellants' own admissions do not teach use the of historical information in stock simulation.

10.8.1.3   It would not have been obvious to combine Klein with O'Shaughnessy

10.8.2   The Examiner has provided proof showing that:

10.8.2.1   O'Shaughnessy teaches historical information, as admitted by Appellants' Appeal Brief, and within the reference; and

10.8.2.2   Appellants' own admissions teach simulation of historical information in stocks, as admitted in Appellants' Appeal Brief, and within the Background of the Specification.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Conferees:

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